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DEC 20 1950

THE BULLETIN

3 VOL 7.

— FIRE NUMBER —

U.S. FOREST SERVICE NORTH CENTRAL REGION

RE-CREATION
NOT
WRECK-CREATION

The Fire Control Problem and the Objective in R-9

by A. G. Nord

Some index to the fire problem is shown by the following brief history of the fires occurring in the Region last year.

National Forest	No. of Fires	Area Burned	Protection Area	No. of Class "C" Fires	Extra Period Fires
Huron	75	945	602,932	7	
Manistee	69	621	469,110	9	
Upper Michigan	125	96	1,822,594	1	
Chippewa	25	362	642,623	7	
Superior	73	183	2,097,918	6	
Chequamegon	73	93	1,213,457	3	
Nicolet	100	1,201	986,628	13	3
Illinois	129	4,687	637,413	65	
Missouri	316	21,957	2,261,242	186	7
Total	1,385	29,145	10,733,917	297	10

The losses for the southern part of the Region are about one per cent of the protection area represented, while in the northern part of the Region, where a stronger system of organized fire protection and public support has been built up through years of effort, the loss averages less than one tenth of one per cent.

In most of the States in which new National Forest Units have recently been approved, information gathered from various sources indicates that through the customary practice of woods burning, the Forest areas are being burned at an average annual rate far exceeding one per cent a year.

The need for a forceful fire prevention campaign by every National Forest in the Region this season is obvious. Losses in all new units must be greatly lowered. Many of the older units have enviable records to maintain. The situation will require thorough analysis of the local fire problem; development of a cooperative and intelligently informed public; perfection in organization, and the functioning of man power; efficiency in the use of equipment, and full employment of known technique in fire control.

Fire plans and accomplishment to insure reduction of losses to an average annual allowable burn which will not exceed one tenth of one per cent of the Federally owned and optioned land is a record which can be attained only through thorough planning, positive executive action, and unfailing performance of personnel, but it is an objective before every Forest Officer, and is a goal which must be reached for the successful practice of Forestry.

* * * * *

Fire Prevention Year Campaign Postponed

The Fire Prevention Year Campaign has been postponed until 1936. The lack of funds has held up printing of campaign material and it will be impossible to get the full force of the proposed program underway in time to do any good. Consequently, there will be no National Committee or sponsoring organizations.

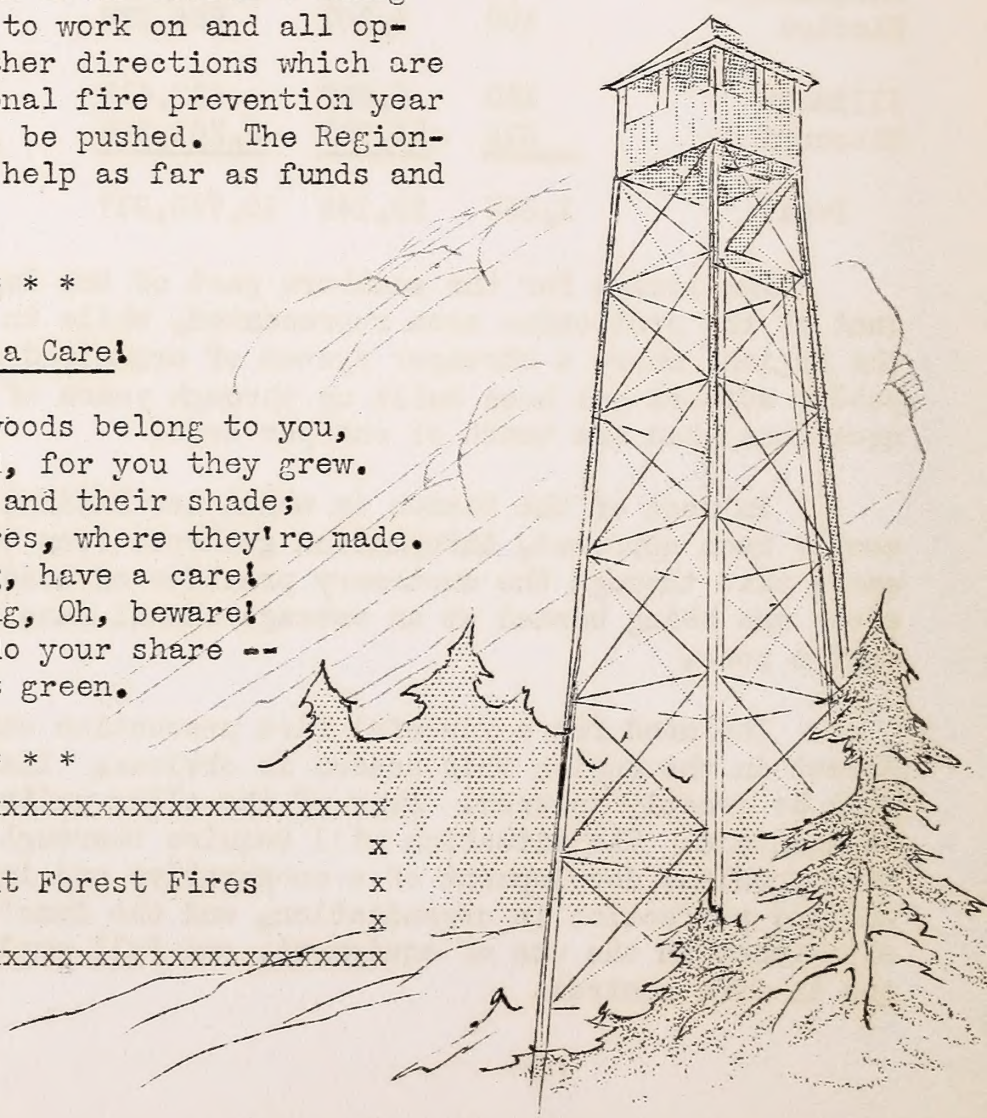
This does not mean that the regional or local effort on fire prevention will be lightened. We strongly urge that plans for local campaigns be continued as originally scheduled. These local campaigns can act as forerunners of the actual National Campaign which will be held next year. Fire prevention is as useful a thing as CCC organizations have to work on and all opportunities in that and other directions which are not dependent on the national fire prevention year scheme, should, of course, be pushed. The Regional Office stands ready to help as far as funds and material are available.

* * * *

Have a Care!

Dear folks! These woods belong to you,
For you they stand, for you they grew.
Enjoy their beauty and their shade;
But guard your fires, where they're made.
When you're fishing, have a care!
When you're hunting, Oh, beware!
And when camping, do your share --
to keep the forest green.

* * * *



xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
x x
x Help Prevent Forest Fires x
x x
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

NOTES ON THE INVESTIGATIVE MEETING

The recent investigative meeting of the Branch Chiefs of the Regional Office and the members of the Central States Forest Experimental Station at Chicago brought out the following facts:

1. Simple method of determining absorption capacities of different soils under different conditions. The study was made by Mr. John T. Auten, Silviculturist of the Station. A pail with the bottom cut out is placed on the site to be examined with all the leaf litter taken away. Outside bottom edges of pail are packed with clay to prevent leakage. Pail filled with water. Absorption powers of soil based on time it takes for water to seep out of pail into ground. A simple test but effective.

2. Water seeps into forest soils 100 times faster than into soils on abandoned fields.

3. Water seeps into unburned and protected forest soils 15 times faster than into the soils of forests burned over annually.

4. Five years of protection will increase absorptive powers of forest soils formerly burned over annually three times.

This fact is important in our erosion, watershed, and forested areas. It means that soil fertility can be increased tremendously on burned over forests merely by adapting fire protection. On watersheds and areas subject to erosion, it is possible to reduce the amount of erosion merely by giving the wooded area protection.

5. Mr. R. C. Hall, entomologist at the Station, who has been studying burning from the settlers viewpoint, has been unable to find any other entomologist who will recommend burning as a means of getting rid of the chinch bugs, cattle ticks, and chiggers. The importance of this statement is best realized when one considers that the majority of the burning done in the southern states in this region is to get rid of these pests.

6. It is generally recognized that each successive burning destroys a portion of the soil fertility and the forest litter and humus which increased soil fertility.

Annual fires in the formerly rich hardwood lands have so decreased the soil fertility, that it is now necessary to plant conifers, for hardwoods will not grow in the defertilized soils.

7. Agencies of erosion have in many of the steep areas carried off the fertile top "A" horizon of the soil by washing, gouging, and gullying action, leaving the sterile sub-soil.

8. Discussing the prairie zone which reaches like a broad wedge with the point in Ohio:

Evaporation in woodlands bordering the prairie area is much greater than in the main forested area. Because of this greater evaporation, it is more difficult to reestablish a forest cover bordering the prairie area, once it is destroyed by fire and overcutting. This explains in part why it is more difficult to reforest large solid areas than small areas.

9. When gullying begins it is a sign that the fertile top layer of soil has already been removed by sheet erosion.

* * * * * *

FIRE - THE ENEMY OF THE FOREST

By Pearl F. Whiteley, Jr. Clerk, Chippewa.

Of all the enemies of the forest, fire is its greatest. Statistics show that in the past few years fires have burned over more than 35,000,000 acres. The greater majority of these fires were caused by the carelessness of the human race. People are not careful with their camp fires, throw away lighted matches, or cigarettes, or burn refuse or brush on windy days.

For the most part, forest fires mean a loss, not only to the owner of the land, but in some way to everyone.

Did you ever stop to think that the forest is of vital importance to everyone of you? Our forests are one of our country's most important natural resources. They are the source of food, wood products, game, and they check the rain and melting snows to prevent floods. Then too, they furnish a steady flow of water for power. Greatest of all, they furnish numerous opportunities for recreation and make our country more beautiful. If we were deprived of these forests, we would all suffer.

It is so easy to help to prevent forest fires. When you are out camping, it doesn't take much more of your time to wait until the fire is out. And, too, it is a simple thing to see that your match or cigarette is out before throwing it away. Our forests are being used so fast that we must do something to protect the ones we have and must, in some way, preserve them because of their vital influence in our country. Just doing a little ourselves to "Help Keep Our Forests Green" will go a long way in preventing the fires and preserving them for future use.

***

WAR ON CARELESS SMOKERS

By G. A. Limstrom, Ranger - Huron

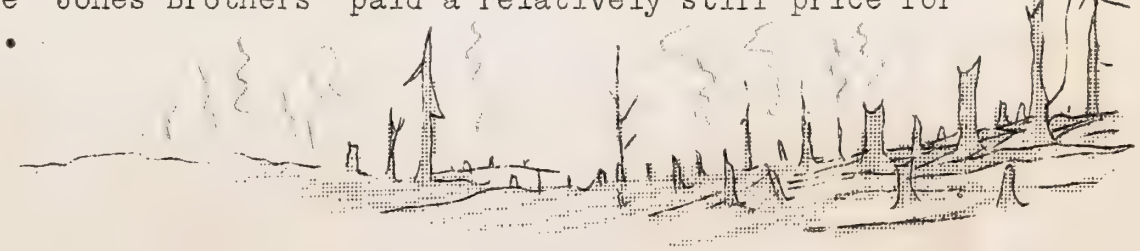
Of the 35 fires which occurred on the Mio District during the 1934 season, 19 were attributed to the careless smoker. When it is further noted that only 29 of these 35 fires were actionable, the size of the smoker problem reaches even larger proportions. Of the 10 other actionable fires three convictions, or 33%, were secured, while only three smokers, or 16%, were apprehended.

Because this proportion of smokers' fires is possibly universally true for the Region, special preventive measures should be taken to reduce this number for the coming seasons. Vigorous law-enforcement is a prevention measure which deserves a great deal of the Forest Officer's time, even during these periods of E.C.W. and other emergency programs. Unless admissions are secured this necessitates prompt action and the closest of observation immediately upon arrival at the fire by the first suppression crew.

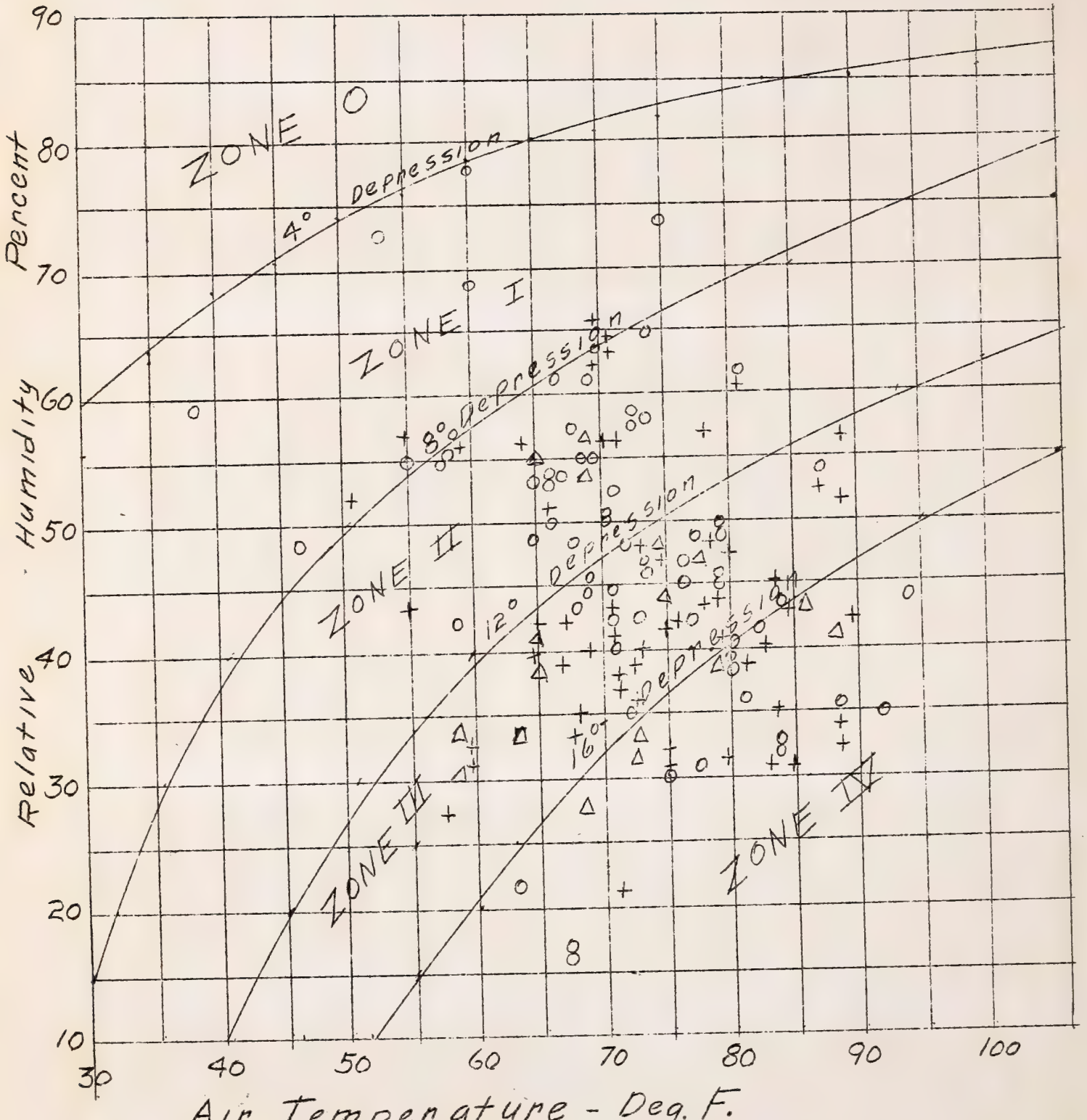
During the past summer, two smokers were apprehended on purely circumstantial evidence which was so presented to the court as to eliminate any possibility that someone other than the defendants were near the fire at the time of its inception. The fire started in fresh jack pine slash and was picked up immediately by the lookouts; the first suppression crew, led by the Camp Superintendent, arrived at the fire only a few minutes after the lookout report, and the following observations were immediately noted: (1) Windfall had to be removed from the road, indicating that no one could have left the vicinity of the fire by automobile; (2) the fire originated on a chopper's strip, and on one freshly cut pile of pulpwood a jacket, 2 axes and a draw-knife were found; (3) shortly after their arrival two men came hurriedly to the scene of the fire to get their jackets and tools; (4) the Camp Superintendent learned they had just been cutting pulpwood on the strip and secured their admission that they each had smoked a cigarette while leaving their strip.

The second suppression crew, starting immediately after the first, arrived at the fire from a side opposite that of the first crew's; no one was seen leaving the area in the vicinity of the fire. A statement was also secured from the camp-boss that none of the choppers but the "Jones Brothers" were working on their strips on that Sabbath morning. The time that the "Jones Brothers" left their strip was found to be only ten minutes before the discovery of the fire.

The defendants entered a plea of "Not Guilty" when arraigned before a local justice of Peace, and were therefore bound over to Justice Court. The above evidence, supported by a large scale map showing roads, logging camp, fire location, etc., was sufficient to win a verdict of "Guilty", and the "Jones Brothers" paid a relatively stiff price for their negligence.



FIRE HAZARD INDICATOR



ZONE - O - NO HAZARD
" I SLIGHT HAZARD
" II MODERATE "
" III HIGH "
" IV EXTREME "

Forest Fires on Marquette National Forest. 1930, 31, 32, 33, 34.
Symbol indicates weather at time of origin and subsequent Size
O = Class A
+ = Class B
Δ = Class C

THE BERGMAN FIRE HAZARD INDICATOR

By Harold Bergman, T. T. Foreman

What might ultimately be used as a new method for determining the fire hazard is presented here for further study. This method uses the difference in degrees (the depression) between the wet and dry bulb therometer to indicate the degree of hazard. Depressions of 4°, 8°, 12°, and 16° were plotted to form fire hazard zones which were arbitrarily numbered O, I, II, III, and IV. Class A, B. and C fires for the years 1930-34 inclusive, were then plotted according to the relative humidity and temperature at the time of starting. This seems to indicate that with a depression of 4° or less, there is little or no fire hazard, since no fires are found in this zone. Zone I from 4° to 8° depression, with only a few fires, indicates slight hazard. Zone II with 8° to 12° depression is indicated as moderate hazard, and zone III as high.

This method also has its advantages in that the position of the zones might be shifted up or down the degree scale to fit conditions in any locality making an accurate fire hazard indicator for that locality. The zones indicated here seem to fit the area around the Marquette.

* * * * * *

FIRE PREVENTION

By John T. Croll, Supt. Camp F-21, Manistee

During the first week of the 1934 fire season, Camp F-15, Harietta, Michigan, sent out to all local residents a letter, asking the residents of the section to abide by the State laws relative to fire; to get the proper permits, etc. The letter stated the penalty that would be imposed for infraction of the law and asked in a nice way everyone's cooperation, so that it would not be necessary to send equipment that might be badly needed for a fire that was tended and that should have been covered by a permit, and to report any smoke seen.

This letter was made on the Army hectograph and put in all mail boxes in the area. At the same time, a fire patrol truck was sent out every evening. The expense was very small and the results very large. Only one fire of this type was started throughout the entire fire season. An appeal was also made through the local newspaper to the residents of the city and to those in the surrounding territory to be especially careful in the woods and along the streams.

The total burn on the seventy thousand acres protected by the camp was only one acre, due at least in part to the good cooperation of the residents and forest users.

If you are there soon enough, 310,000 E. C. W. man days spent in R-9 fighting forest fires will shrink to about 5,326 man days.

These sets would cover the unit entirely, but further protection could be had from forestry cars, equipped with sets similar to those installed in the lookout towers, patrolling the protected area over every passable road and trail, not unlike police squad cars. These cars, always in contact with the lookout towers and the dispatchers office, could carry a one or two man fire fighting outfit and would be able to put out countless spot fires, which in the time required for a crew to arrive, could apread to a dangerous extent.

The radio would necessarily be short wave working on a low meter band and could and should be on a band not used by any other short-wave stations, thereby guaranteeing fast and uninterrupted intercommunication. The sets would be of simple and compact but dependable design, and permanently tuned to a set frequency so that any communication would be instantaneous.

The cost of putting this sytem into operation would be comparatively small and the time saved in reporting the location of fires and in getting men to the fires, resulting in a decrease of fire losses, would justify a serious consideration of the use of radio, if not warranting their installation.

It is true that this system would call for men experienced in transmitting and also for the services of a number of trained radio service men. But since the Forest Service is mainly made up of trained men it would not be out of the ordinary to acquire these men, and their services would not come higher than those of the average technical man.

****
Green Forests mean Fish, Game and Tourists.
****

MARQUETTE'S FIRE FIGHTING RECORD - 1934

The Marquette can be justly proud of the record made during the current fire season. Although there was a total of 40 fires, only 60.7 acres were burned over, an average of only 1.5 acres per fire. Table No. 1 shows the relation between the No. of A, B, & C fires and the area burned over.

Area & Number of Fires Per Class
Table No. 1

	A	B	C	Total
No. Fires	25	14	1	40
% of Total No.	63	35	2	100
Area Burned	1.62	39.4	19.7	60.72
% of Total Area	3	65	32	100

It will be noted that although the size A fires form 63% of the total number, yet they caused only 3% of the loss. The size B fires forming 35% of the total, caused 65% of the loss. It is also significant that only one class C fire was reported and this was responsible for 32% of the area burned over.

That this was an extra ordinary record can be further proven by the records of precipitation for this period and corresponding periods during the past five years, as seen in table No. 2.

Table No. 2

Month	Normal Precip. at Sault St.Marie	1934 on Marquette	Average For Last 4 years on Marq.	Deficiency	Area
May	3.03	1.19	3.65	2.46	17.7
June	2.92	2.16	3.44	1.28	5.3
July	2.89	2.46	3.46	1.00	24.5
August	2.62	1.16	1.91	.75	13.2
September	4.19	4.32	5.41	1.09	0.0
TOTAL	15.65	11.29	17.87	6.58	60.7

This shows that each month had a deficiency in amount of rainfall, with May and June far below normal.

A total deficiency in rainfall for this year of over 4 inches is noted when compared to the normal precipitation for the period, May to September inclusive. Compared to the average rainfall of the Marquette for the last 4 years, the deficiency is even greater, being 6.58 inches.

While we are using these figures to show the extreme hazard during this period and the efficiency of our fire fighting machine, yet the deficiency might also be the cause of some of the poor survival on this spring's plantations.

Another extraordinary feature of this years weather, is the large number of lightning caused fires. While lightning seldom causes fire in the locality, it will be seen in Table No. 3 to have been the direct cause of 12 fires.

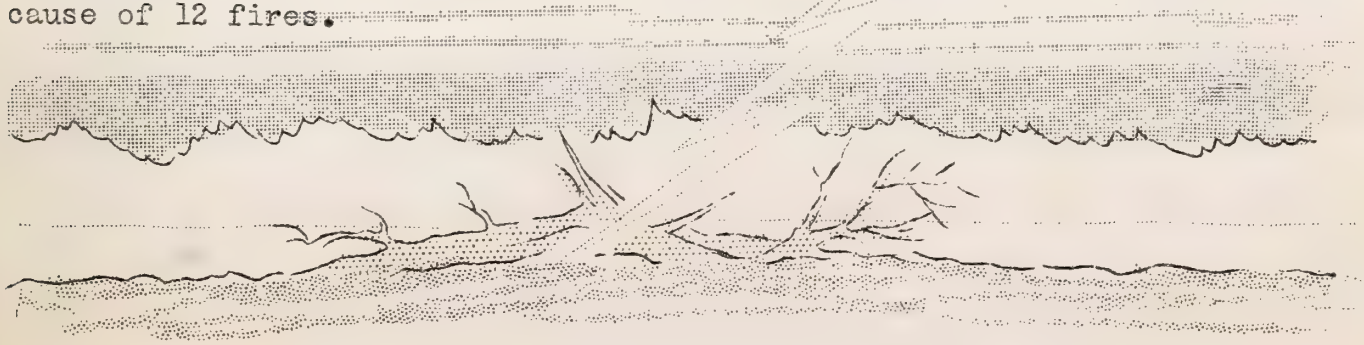


Table No. 3

	Smokers	Light-ning	Incen-diary	Rail-road	Camp Fire	Brush Burn-ing	Spontan-eous com-bustion	Trac-tor	Total
No. Fires	15	12	6	3	1	1	1	1	40
% of Total Number	38	30	16	8	2	2	2	2	100
Area Burned	16.50	32.21	5.7	3.2	.1	.5	2.5	.01	60.72
% of Total Area Burned	27	53	9	5	.1	.8	4	.1	100

These same 12 fires caused 53% of the loss. Smokers again caused the largest number of fires, but the area burned over was smaller. It is interesting to note that the only class C fire was caused by lightning.

This record is the direct result of a combination of alert towermen and quick decisive, initial action.

H. Bergman,
T. T. Foreman.

A. J. Quinkert,
Camp Superintendent.

* * * * * *

SCALPING RECORD

Camp F-15, which was located at Harrietta, Michigan, and occupied by colored boys, scalped 2,395 acres during the summer of 1934 for an average cost of $2.51 per acre.

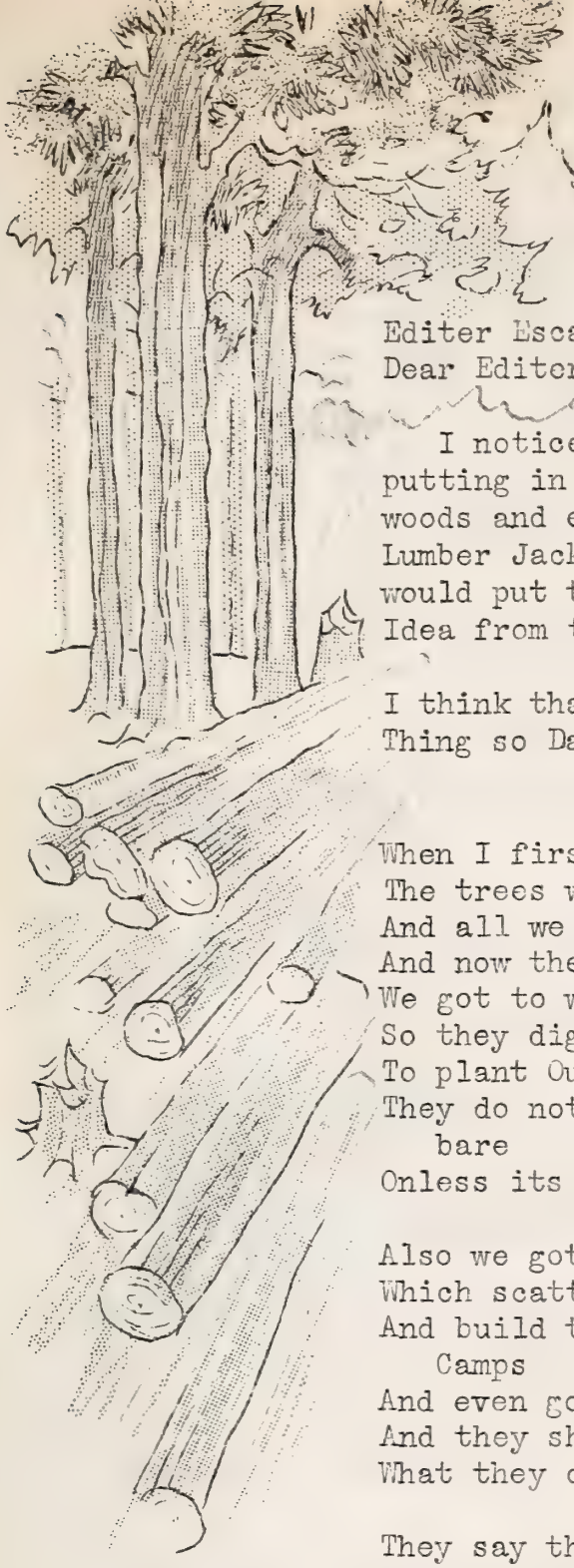
This cost includes C. C. C. labor at $1.00 per man-day, all supervision, transportation, and miscellaneous charges.

Scalping was 6' x 6' spacing for future Jack pine planting. The supervision cost ran 20% of the other labor charges because it was necessary to have a foreman with each crew if spacing was to be kept uniform.

The lowest cost per acre was $1.60 in very flat easy going where there was little sod and little if any transportation. The highest cost was $3.33 per acre where the going was bad and transportation charges considerable.

* * * * * *

A tree will make a million matches, but one match may destroy a million trees.



Editer Escanaba Daily Prass
Dear Editer.

I notice by Papper you have been putting in a Lot about trees and the woods and etc. so as I am old time Lumber Jack I would like if you would put this in too and I get my Idea from that Poem

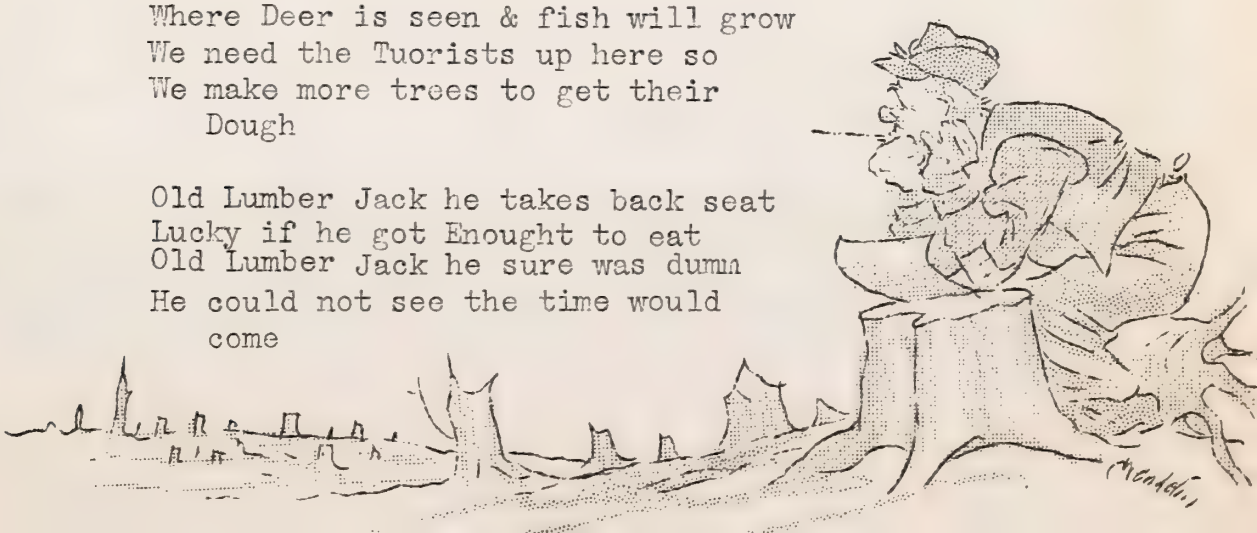
I think that I have never see Some Thing so Dandy as a tree.

When I first came to this here Town
The trees was Growing all Around
And all we Know was cut them Down
And now the Forest Servist say
We got to work the Other way
So they dig holes & work like sin
To plant Our Forest Trees back in
They do not likeing plains whats
bare
Onless its some thing Growing there

Also we got some CCCs
Which scatter out among the trees
And build theirselfs the Fancy
Camps
And even got electrics Lamps
And they should also try and see
What they can do about makeing Tree

They say the Tuorist will not come
When all our Woods is on the Bum
They want some wild Rough place
to go
Where Deer is seen & fish will grow
We need the Tuorists up here so
We make more trees to get their
Dough

Old Lumber Jack he takes back seat
Lucky if he got Enought to eat
Old Lumber Jack he sure was dumn
He could not see the time would
come



When all the Woods would be Left
Bare
And no Job left for him up here

If Lumber Jack had just been Smart
Long time ago he could of start
To planting Trees & other stuff
And keep the woods right up to Snuff
Instead of always brag about
How Manny Logs he could take out

Some day the time will come Again
When Trees will make more jobs for
men
And my boy who is now a Little Kid
Will thank those Foresterys for
what they did
And when the Woods they all grow
back
I hope that Kid makes good Lumber
Jack

Poems is wrote by Andy P.
But Forest Servist makes the tree.

By Andy P. Olafson.

* * * * *

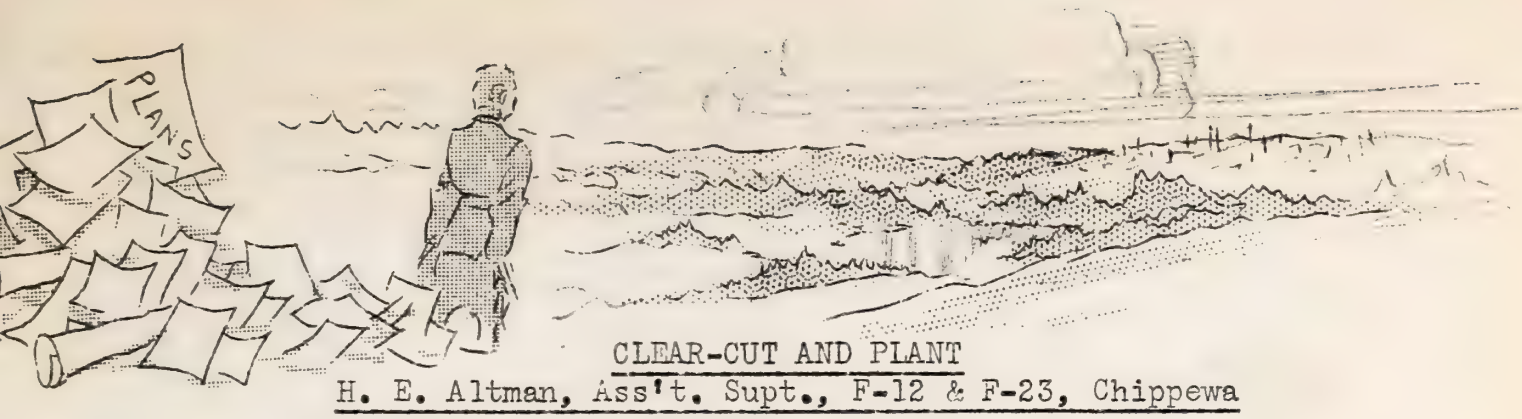
FIRE - FIGHTING WITH RADIO

By R. H. Fletcher, Foreman - Manistee

A question that has arisen and will continue to arise with increasing frequency in the future among forestry officials is whether radio, as a means of combating the menace of forest fires, will assume a place of importance in the list of standard apparatus and whether the dependability, speed, and accuracy of this type of communication will warrant its widespread use.

In a settled forest unit, well covered by telephone lines, both private and government, the use of the radio would be of small importance and little needed, but in a more isolatedforest such as some in the upper peninsula of Michigan and in the western States, the radio, if under intelligent and responsible supervision, would play a very important part in decreasing the time required in reporting location of smoke and in getting men to the fire.

The system would necessarily call for sets at all strategic points. A larger set would be installed at the dispatchers office or even at every CCC camp in the district. All lookout towers would have smaller sets capable of contacting all points from which crews are to be sent out.



CLEAR-CUT AND PLANT

H. E. Altman, Ass't. Supt., F-12 & F-23, Chippewa

A common expression has come into being on the Chippewa to indicate the type of timber stand improvement operation that might be carried out in any stand, the composition and development of which resembles nothing more than Section 37 of Hades proper. In answer to the question, "What kind of cultural operation would you carry out here?" the reply has been, in viewing such stands, "Clear-cut and plant". This would invariably evoke laughter and even cause smiles of condescension to appear on the faces of the more mature-minded. Seriously speaking, however, it did appear to be the only plausible solution.

The same is true of the trend of thought in the minds of Foresters of R-9. In view of the rapid expansion and inspiring changes of policy, it is time for everyone to "clear cut" the conservative ideas and "plant" the seeds of a new, broader vision in order to be abreast of the times.

In the field of recreation alone, for instance, one Ranger District has already recommended a golf course, tennis courts, caretakers for the larger camp grounds, boat houses and boats, all under Forest Service supervision. A short time ago, such a suggestion at an open meeting would have resulted in a riot call. Fortunately, however, the process of "clear-cutting and planting" has been going on in the minds of executives for some time, and all that remains is for everyone to gain that same perspective that will inevitably result from a deep absorbing interest in the future of Forestry and the Service.

* * * * * *

SAFETY FIRST

Ned Meller - Missouri, F-9

A Safety Contest, penalizing each crew one point for accidents occurring and two points for each man-day lost as a result of this accident, has been inaugurated at Camp Blooming Rose. As an incentive, the safety council has invoked the spirit of the gastronic muse and the winning crew has been scheduled to be guests of honor at a table d'hote dinner where the piece de resistance will be baked chicken and at which they will be presented ribbons stating that they have successfully passed two months entirely free of accidents, while the losing crews will have to watch their luckier -- and, incidentally, more careful -- fellow workers enjoy this repast while they themselves are forced to be content with a meal of beans or black-eyed peas and sow-belly. And so, lads and lassies of the North Central Region, it behooves (nice word, that) us on this

auspicious occasion to ask that you cross fingers and eyes and hold thumbs and thoughts that your correspondent's crew be the lucky one enjoying this bank-wit, for having reached the ripe old age of thirteen before finding out there was anything to a chicken other than the part going south when the chicken turned north, he thinks he deserves a "break".

* * * * * *

"MEDITATION"

By "Little Bud" Fournier, C. F., Manistee.

I wandered through the forest,
My mind was ill at ease,
I could hear the pine trees whispering,
I could feel the summer breeze.

I wondered at the works of nature,
And how they came about,
But after thinking deeply,
I solved the mystery out.

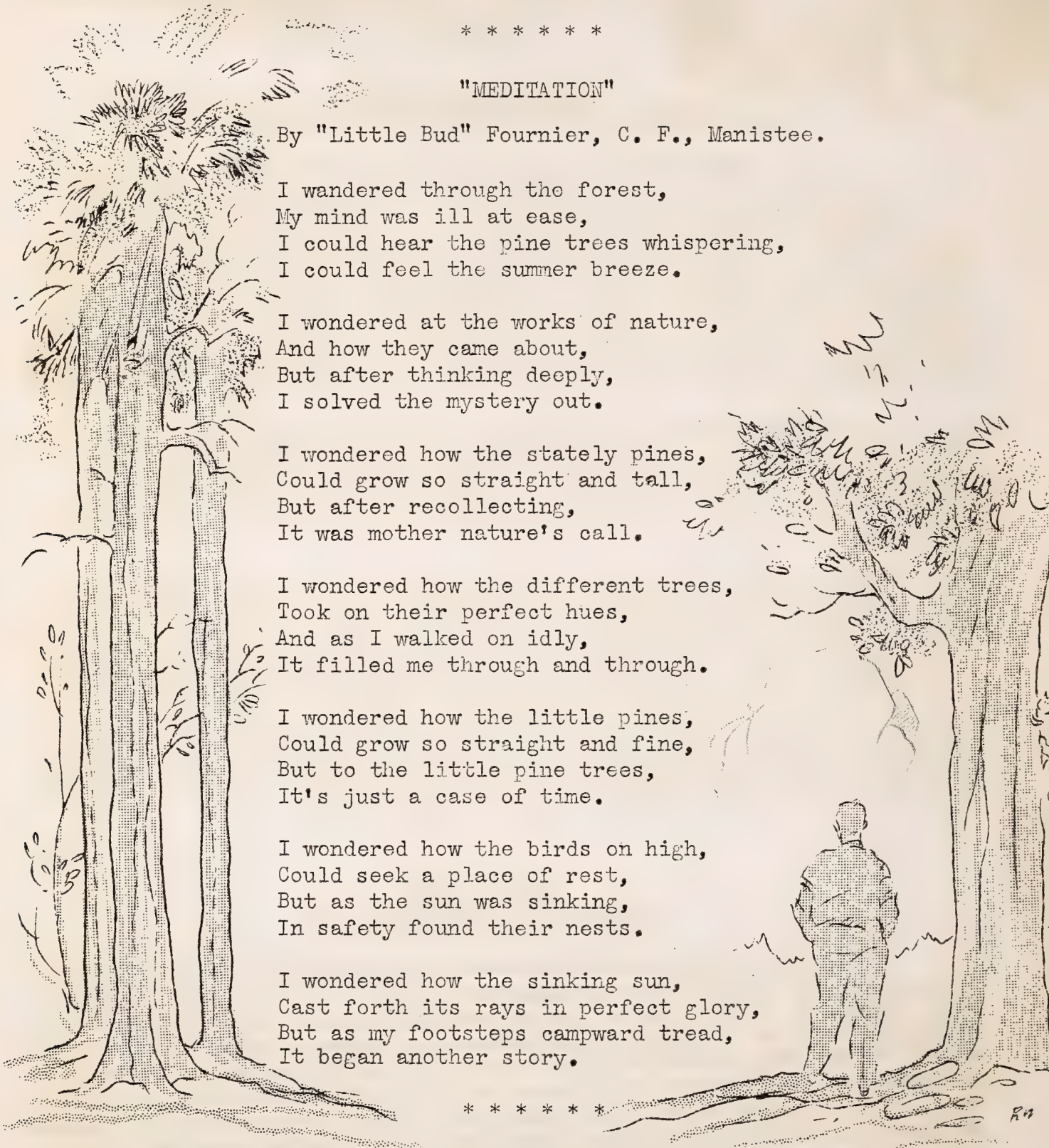
I wondered how the stately pines,
Could grow so straight and tall,
But after recollecting,
It was mother nature's call.

I wondered how the different trees,
Took on their perfect hues,
And as I walked on idly,
It filled me through and through.

I wondered how the little pines,
Could grow so straight and fine,
But to the little pine trees,
It's just a case of time.

I wondered how the birds on high,
Could seek a place of rest,
But as the sun was sinking,
In safety found their nests.

I wondered how the sinking sun,
Cast forth its rays in perfect glory,
But as my footsteps campward tread,
It began another story.



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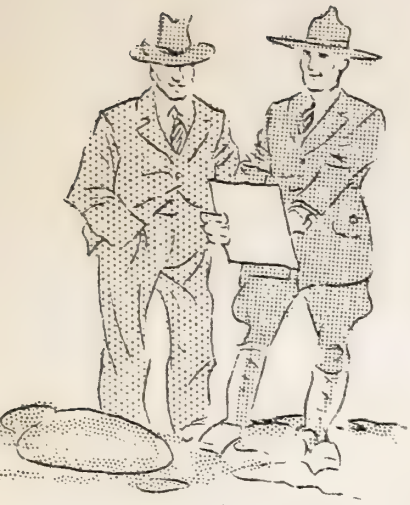
Visitors are crowding our Forests yearly in increasingly large numbers. Camping places surrounded by beautiful timber are a real joy. Burned Forests mean no tourists and less revenue.

A TRAINING SCHOOL FOR FOREMEN?

Calvin Stewart, B. R. Checker - Ottawa



The question of the advisability of having a training school for foremen employed under E.C.W. has been argued for a long time. The first objection raised was that concerning the practicability of such a school. Is it a worthwhile investment? Is the government justified in spending the money? Our answer is YES!

Large business concerns often spend as much as six months in training a man they feel is qualified to handle the job for which he was chosen. Why then, should we hesitate to train our foremen who are responsible to their Superintendent for the work in the field. Mistakes are costly and some mistakes can never be erased.

By giving all new foremen a systematic training such as will fill their needs as nearly as possible, we believe that the men will be better equipped to take over their jobs. There is no doubt, that given the proper training at the beginning, the men will be much more valuable to the organization.

In February, Clare W. Hendee, Sr. Ranger, in a communication with Birger Berg, Camp Superintendent, Paint Lake Camp, requested that he set up a training outline for all new foremen assigned to the Ottawa National Forest.

It was decided to hold the training sessions in and out of Paint Lake Camp, the men to be housed at the abandoned CCC camp at James Lake and fed at Paint Lake.

On February 11, seventeen men, headed by our new Ranger, Floyd Roberts, assembled at Paint Lake Camp. The group was composed of a Ranger, two Assistant Rangers, five Technical Foremen, two Construction Foremen and seven Sub-foremen.

Superintendent Berg headed up the training and was assisted by Technical Foremen Dickson and Grimes and Construction Foreman Fred Serena.

All foremen, regardless of status, spent the first two days in the office. On the first day, following a short introductory talk by Superintendent Berg, the men got acquainted with each other and with the camp set-up. After this, the subject of Fiscal Regulations and all its parts was taken up. Property accounting was gone into thoroughly, the use and care of Government property was especially stressed.

On the second day the standards of work for all classes of E.C.W. projects was discussed. The men were lead through the various projects

and all standards were carefully put forth. Meetings were also held each evening to tie up the loose ends of the day's instruction. Discussion leaders were Superintendent Berg, Dickson and Grimes. After this preliminary skirmish with the mysteries of the present set-up, all foremen, regardless of status, went through the daily routine of a foreman at Paint Lake Camp from the time he received his instructions from the Superintendent in the morning until he returned at night to make out his reports and diary. The men were in the field all day and every phase of the routine was covered.

Following this initial training the foremen were separated into two groups, namely:

1. Technical Foremen.....Grimes in charge
2. Construction Foremen & sub-foremen...Serena in charge

The Technical Foremen spent two and one-half days in the field covering Forest Inventory. It was deemed advisable to stress Forest Inventory because it is the foundation for practically all technical work.

One day was spent on cutting operations in a White Pine thinning operation, the men covering all phases of the work in detail.

Two days were spent marking trees for cultural work, one day in a white pine thinning and one day in a hardwood type. The men worked as a crew and covered every possible angle and problem of marking.

The last day was spent in the office, working up reports and forms for Forest Inventory and instructions were given in the making up of a good, sound silvicultural statement to be written up for each section.

The sub-foremen and construction foremen spent two days with the cultural crews in a white pine thinning operation.

One-half day was used in taking up the problems met in maintaining a camp wood supply. Also problems were met in the field, that is, problems concerning the camp proper, garage, toolshop, etc.

The last day of training for these men was used in covering hazard reduction in detail and an inspection of Teepee Tower. A trip was made to the Elmwood Guard Station and to the telephone line between Golden Lake and Iron River which is under construction.

Sr. Ranger Hendee appeared before the men one evening and gave a very inspirational talk covering the Forest Service set-up and the problems concerning it. His talk brought added confidence to the men and gave them a still clearer insight as to what is expected of them.

The sub-foremen and construction foremen were in training from Monday morning February 11 until Monday evening February 18. The technical foremen had a longer training period, lasting until Thursday evening February 21.

At the close of the two training sessions Superintendent Berg requested each man to submit a statement of suggestions and criticisms that would enable the men responsible to make the next training school a still bigger success.

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* A match has a head, but it does not use it to think with. You have to do all the thinking for it.

****

A PROPOSED FOREST MONUMENT

FOREST SUPERVISOR, Rolla:

Between the towns of Ironton and Pilot Knob and adjacent to Highway 21 is an old fort used during the civil war. This fort is owned by Thomas Ewing of 160 Broadway, New York, N. Y. Mr. Ewing's father was in command of the Union Army who occupied the fort during the battle of Pilot Knob. Mr. Ewing bought this land with the idea of giving it to the State of Missouri as a state park. Up to the present time, however, he has not deeded it to the state because of the fact that no one would give him definite assurance that it would become a permanent monument.

This fort is now inside the boundaries of the St. Francois Mountains Purchase Unit, and it is my belief that if we will definitely promise Mr. Ewing that the fort will be preserved as a national monument he will be willing to give us a deed to it free.

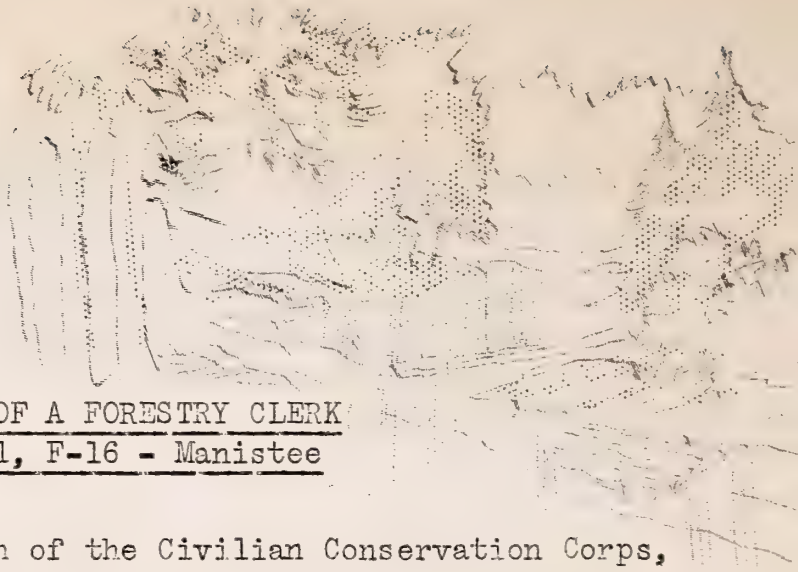
Mr. Lindh has suggested that this area might be used as the place selected for the dedication of the Clark National Forest.

Just to the south of this fort on the slopes of Shepard Mountain are still visible the lines of trenches built and occupied by the Confederate Army. I am of the opinion that these trenches are on land now under proposal from W. R. Edgar of Ironton.

A legal description of Mr. Ewing's land is "lots 54-55-56-63-64-65 Big Muddy Coal and Iron Company Subdivision of Iron County."

Please take this matter up with Mr. Ewing.

OWEN B. HURLEY (S)
Principal Ranger.



RUMINATIONS OF A FORESTRY CLERK

J. V. Engwall, F-16 - Manistee

Before entering this branch of the Civilian Conservation Corps, the admission must be made that my impressions and ideas of the plans and work of this gigantic conservation army were indeed very biased. Possibly, I was not alone in that conviction. All through life itself you find most people judge too harshly and too soon, even if that privilege is not theirs.

In this connection, it is my desire to call your attention to one phase of our work, namely; the lake and stream development being conducted in the Manistee National Forest environs by Manistee River Camp and John Van Norman, our Wild Life specialist.

To date we have conducted surveys on every good fishing creek and lake within a 20 mile radius of our camp at Brethren and have already accomplished 7 miles of actual stream improvement including deflectors, square covers, and wing deflectors.

The log shelters and deflectors have largely been placed in trout streams which were already famous for trout so with the increased feeding and hiding places we can expect results.

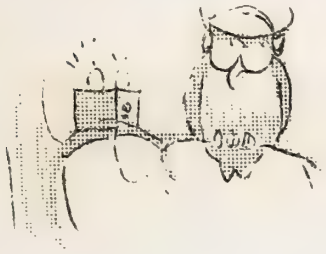
Brush shelters, snag shelters, and gravel spawning boxes were placed in lakes whose condition is not conducive to good propagation. The survival of fingerling will be greatly aided by their hiding in the brush shelters. The spawn will also have better chances of successful hatching and not become submerged in silt because of the gravel boxes.

Through the co-operation of our local Izaak Walton League we were able to erect a durable fish screen a mile from the mouth of the most famous trout stream in Western Michigan, namely; Pine Creek. The purpose of this is to keep out the steehead and rainbow trout and give the brown and speckled trout better chances of spawning and surviving. We are at present maintaining a guard constantly at this screen and will do so until after spawning ends to prevent its being dynamited or removed. It will not be unusual to see several hundred rainbow milling at the screen when the spring thaws commence. We expect to dip a few and remove them to the Big Manistee River above the Junction Dam after the big run starts. This will create excellent fishing for the ardent casting rod fans in the backwaters of the dam, known as Loomis Landing, all summer long instead of the usual few weeks, for once they get above the dam, they can not get back.

Possibly you will not agree with us, but it is our honest belief that there is no other type of our work that will show as early returns in increased wild life propagation and public appreciation as this stream and lake improvement program.

This actual work in direct conservation is of a nature that no other agency is capable of organizing and maintaining consistently, it has been spasmodically tried and abandoned due to lack of money and public interest. But thanks to a slight depression and the foresight of a few outdoor loving citizens we are now on a program of real benefits. Let's pray for a continuation.

* * * * * *



A great big owl sat in an oak,
The more he saw, the less he spoke,
The less he spoke, the more he heard,
Why can't we all be like that wise
old bird?

* * * * * *

HOW PETER RABBIT MET HIS FATE
F. N. Fixmer, Scott Camp - Nicolet

Licketty - split, licketty - split. Peter Rabbit was strolling down his favorite lane. He had a dreamy look in his eyes; perhaps, he was thinking of the date he was on his way to keep with Nancy or was it Annabelle? Then again, he may have been re-living those delightful moments last autumn when he nibbled off the tender tips and buds of a couple dozen freshly-planted pine seedlings - what a meal that was!

Whatever tickled the fancy of Peter at that particular moment will never be known, for suddenly, in the middle of a gay hop, he felt a wire noose tighten around his belly. His fancy wasn't tickled now, it was his ribs!

"Oh! ho!" thought Peter; "I see that Mr. Martin Hawrylow of Scott Lake Camp is on the job again. But I'll fool him; this is one bunny that he won't send to the County Relief Organization." Thereupon, Peter took as deep a breath as he could, considering the fix he was in, and he "huffed and puffed" and pulled and tugged, until suddenly the snare's support broke loose!

"Boy, am I ever strong!" squealed Peter with glee and kicking his heels with the exhilaration of his escape, he hurried on his way. Won't Nancy -- or was it Annabelle? -- be proud of her "big boy" when she sees me with this wire around my middle and that stick trailing behind!" he thought, as he hopped along. Once more, Peter was dreamy-eyed as he licketty splitted on his way to wherever he was going.

Alas! Fate deemed that Peter should never arrive at his destination. For, he had not gone more than a few hundred feet when: "Ugh!" he grunted, "Another one of Forester Hawrylow's little contraptions! Peter kicked and squirmed, then squirmed and kicked, but to no avail. With mounting despair he felt the noose around his neck grow tighter and tighter. Then, with one last squeak, he cried "They got me, pal" and expired.

Thus did Technician Hawrylow add another chalk mark on the wall.

* * * * * * *

News from Manistee River Camp

A deer drive, in which nearly a hundred enrollees are expected to participate, is scheduled to be held in a week or two. This drive will be under the personal direction of John Van Norman, the Fish and Game expert at our camp. The purpose of this drive is to find the number of deer per acre in this particular locality. The drive will be made through highlands and swamps.

Of interest to the enrollees at our camp is the announcement that Mr. C. F. Harden, successor to Robert Harper in the position of Technical Foreman, will conduct surveying classes for enrollees each Saturday. This class, numbering from fifteen to twenty-five, will get first-hand experience in the field and at the same time will actually be accomplishing something as they will be re-surveying some acquisition land.

These men will be acting solely on their own initiative, hoping to enlarge their knowledge of forestry and thus improve their chances of getting a more remunerative wage when they have served their terms in camp.

The "breaking-in" of these men will also leave the camp well supplied with surveyors to aid the big acquisition purchase program.

***

up at a surprising rate, a crew of CCC computers from Co. 704, was set to work arranging and filing the data. Seven months after it began, the field work was completed. Meanwhile, reports on all proposals had been taken care of, and the files finally made complete, sections filed under townships.

All of the private land in the district, not included in timber survey, was cruised, a total of approximately 109,000 acres. Then began the task of preparing reports for all of the several hundred land owners listed in the status book. This job, as yet incompleted, is being done by the CCC office force under the supervision of the Rangers office.

In the process of doing the 150 cases worked up thus far, on unoffered land, an efficient system has been worked out. First the tally sheets are computed and duplicate type maps made. Duplicate Form 47 sheets are filled out and transferred to a Form 46. From Form 46 the figures are taken for the valuation sheet Form 1021, sheet 2, and for the condition of tract summary on the report sheet 1, Form 1021. Considerable confusion has resulted from the latest change made in the "Condition-of-tract Summary" on the revised 1021's, especially since our Form 46's date from the time when classifications were "virgin, light & heavy cull, etc." Then the classifications were changed to "Merchantable and Unmerchantable Timber, Young Growth, etc." The forty summary sheets on which our notes were made are of this vintage. Now with the latest change, the difficulty comes in transferring figures from the old classes to the new.

Cases are doubly checked before they are submitted to the Supervisor's office. The duplicates are sent in and the originals kept in our files. Files are kept of all cases in the process of being acquired and of cases already closed. In a short time we hope to have all private land on the Stony valuated, so that it will not be necessary to send out examiners each time a tract is proposed for sale.

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* Shock to Refinement - Jasper: "What made you *
* leave Mrs. Blah's boarding house after living there *
* for three years? *
* Casper: "I found out they had no bathtub." *
****

Debts Must be Paid

J. R. Korando, Ava.Ill. Feb. 15,1935.

Well Mr. Hess I am Writing you A Few lines That I am A Live I sold My Place Well Mr Hess I Under That The Charles Austin going For sell His Farme Tow The govermet. And you or Thare Agent For the land

You Please Find out how Much Charley Austin Oeas on his Place. He oes me $200 And 60 Dolars. You see what show There is Tow get That Money I make it good with you. If can come up Tow Ana I would like Tow Talk Tow you And Make It care Tow you. Good by.

A MESSAGE TO GARCIA

(This classic of ELBERT HUBBARD has been called the "Most Popular Sermonette in the World" is taken from the Milwaukee Journal of February 23. Personnel training is a big part of the Forest Service job and the apt application of the tenets of this message makes further explanation unnecessary. Because of its length it will be published in three parts. Take it to heart fellow foresters!)

In all this Cuban business there is one man who stands out on the horizon of my memory like Mars at perhelion.

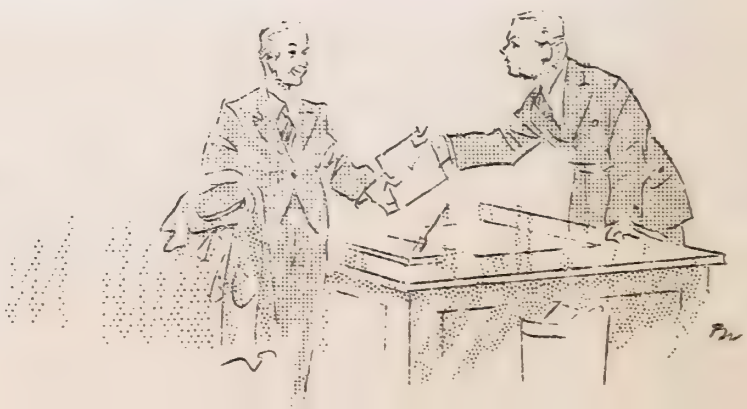
When war broke out between Spain and the United States it was very necessary to communicate quickly with the leader of the insurgents. Garcia was somewhere in the mountain fastnesses of Cuba - no one knew where. No mail or telegraph message could reach him. The president must secure his co-operation and quickly.

What to do!

Someone said to the president, "There is a fellow by the name of Rowan who will find Garcia for you if anybody can."

Rowan was sent for and given a letter to be delivered to Garcia. How the "fellow by the name of Rowan" took the letter, sealed it up in an oilskin pouch, strapped it over his heart, in four days landed by night off the coast of Cuba from an open boat, disappeared into the jungle and in three weeks came out on the other side of the island, having traversed a hostile country on foot, and delivered his letter to Garcia - are things I have no special desire now to tell in detail. The point that I wish to make is this: McKinley gave Rowan a letter to be delivered to Garcia; Rowan took the letter and did not ask, "Where is he at?"

By the eternal! There is a man whose form should be cast in deathless bronze and the statue placed in every college of the land. It is not book learning young men need, nor instruction about this and that, but a stiffening of the vertebrae which will cause them to be loyal to a trust, to act promptly, concentrate their energies - do the thing: "Carry a message to Garcia."



NEWS ITEM
Forest Supervisor
Huron

Approximately 9½ million trees on 10,000 acres were planted by the Forest Service on the Huron National Forest in the fall of 1934 in connection with the planting operations just completed. For 23 years now the Forest Service has carried on annual planting projects. The planting was done principally by the workers of the four CCC camps in operation on the Huron Forest in the past year.

One year old seedlings raised in Forest Service nurseries were used, jack pine being the principal species used with smaller amounts of Norway pine, white pine and spruce.

An innovation marks the 1934 plantings in that jack pine seedlings were used for the first time. About4¼ million jack pine were planted in addition to the planting of 4 3/4 million Norway pine and smaller numbers of white pine and white spruce.

Jack pine is given favorable consideration on account of its rapid growing qualities and ability to withstand drouth. There is also a big market demand for jack pine pulpwood.

To date 65,000 acres have been planted on the Huron Forest.

* * * * * *

A CCC CAMP IN QUARANTINE

Calvin Stewart, B. R. Checker - Ottawa

On Wednesday, February 27, the Paint Lake CCC camp was placed in quarantine following the outbreak of a Scarlet Fever case. The unhappy offender is a CCC enrollee now sojourning in the isolation hospital in Ironwood with three more unlucky companions from the same camp who came down with Scarlet Fever shortly after the first case.

As the entire camp was quarantined, including the Army and Forestry personnel, we wondered what we would do with all the time left on our hands, not to speak of the money saved by being unable to go into town. A few card games took care of the extra cash burning in our pockets and made the evenings pass quickly.

How to keep 200 men happy and contented worried us until the officers and foresters got together and arranged a field meet for Saturday afternoon, a competitive affair that would take all Sunday to talk over and "second guess". For the first Saturday a 200 yard snowshoe race and relay race was arranged as well as sawing and chopping contests.

The snowshoe race was very exciting with many a spill to entertain the spectators as the contestants endeavored to gallop. The relay race on snowshoes proved to be the most spectacular, four men and one pair of shoes to a team, necessitating each runner to change shoes before beginning his lap. The third race was a 75 yard dash through three feet of snow and was one long to be remembered. The tallest man in camp crawled in on hands and knees to win first place.

In the sawing contest, a 14 inch hard maple log was placed on horses and the teams sawed against time. The fastest team, brothers, cut through the log in 37 seconds which we believe to be mighty fast work.

A 14 inch hemlock log was used in the chopping contest. Each contestant had to chop entirely through the log to qualify. The winner, reputedly the strongest man in camp, made his cut in one minute, thirty-four seconds.

On the second Saturday of the quarantine the rest of the events were run off. These consisted of a tug-of-war, hop-skip and jump, and hammer throw. The champion tug-of-war team pulled the Foresters all over the lot, much to our chagrin.

On Monday morning, March 11, the quarantine was lifted and that evening we all went to town, none the worse for our enforced exile.

* * * * * *

Stand It on Its Head - "Have you any alarm-clocks?" inquired the customer. "What I want is one that will rouse father without waking the whole family."

"I don't know of any such alarm-clock as that, madam," said the shopkeeper. "We keep just the ordinary kind that will wake the whole family without disturbing father."

* * * * * *

Saith the Oracle - In darkest Africa two natives were watching a leopard chasing a large, fat man.

"Can you spot tho winner?" asked one.

"The winner is spotted," replied the other.

* * * * * *

Canine Erudition - "Lay down, pup; lay down," ordered the man. "Good doggie, lay down, I say."

"You'll have to say,'Lie down,' mister," declared a small bystander. "That's a Boston terrier."

IS SUSTAINED-YIELD POSSIBLE IN THE LAKE STATES?

(Excerpt from report by R. B. Goodman of Marinette, Wisconsin, to Northern Hemlock & Hardwood Association. Excerpt taken from November 1934 American Lumberan).

Our forests are almost gone. So once were Germany's. Our holdings of forest land are becoming blocks too small to support the owner's existing sawmill. Some of the successful private forests of Germany are less than 2,000 acres in area. If our taxes are prohibitive then our tax system should be changed. If private owners are irresponsible, then we should make them responsible through enlightened self-interest. We must keep open the door of profit to private ownership, while opening the door to a more extensive public ownership. These problems have all been faced and in some way solved in the hundred and fifty year, 32 million acre German sustained-yield forest experiment for Germany. Can not the Lake States also attempt a thorough-going long-time effort for sustained-yield forest management for the Lake States? We are here to discuss the beginnings of such an undertaking.

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* There may be splinters in the ladder of success *
* but you don't notice them unless you're sliding *
* down. *
****

WHAT ARE THE ANSWERS?
By Harry C. Turner, Planting Ass't. - Huron

The writer has always been of a rather inquiring mind and optimistic withal as to initiating experiments calculated to answer the many questions that come up in Nursery and Planting practice. However, after experiences covering a good many years it begins to look as if nothing makes much difference.

At the Beal Nursery for years an experiment to find out what is the correct density for seedlings in the beds has been in progress. Something has often happened to interfere with the results such as a drouth that cleaned out the planting, but finally we got some results from stock planted in 1931 and counted in 1932 which indicated, very properly, that if trees are raised at densities of 60, 75, 100 and 125 per square foot the percentages of survivors in the field will be in inverse order to these densities. We felt pretty good at securing this logical result - but not for long.

In May 1933, the corresponding stock was planted in the field. On account of the outstanding drouth of 1933, it was supposed that the whole experiment had gone by the board and in fact was so reported; however, the plot was examined in the fall of 1934 and it was learned that the 125 per square foot stock had the best survival (24.8%) as compared with only 18% for the 75 - stock, and the 60 and 100 per sq. ft. seedlings were practically tied at 23.7 and 23.5% respectively.

The net result of our years of experimenting along this line as of this date, therefore, approximates zero.

Then we tried to find out whether spring or fall sowing is the best procedure and got fully as good stock from the former as the latter; while up at the Rhinelander Nursery Jones finds that spring sown stock (Norway pine) is hardly worth mentioning.

Another experiment was undertaken to find out whether little or much watering in the nursery is advisable, three grades light, medium and heavy being tried. This stock was planted in the fall of 1933 and in August 1934 the heavy watered stock was in the lead with 78% survival as compared with 76 for the light and 71 for the medium. This was in order of the size of the stock, and was considered as showing that the bigger the stock the better chance of survival, which is not so far off. But we are not through with this; the stock was counted again in November and the heavy watered was now down to 56%, as compared with 61% for the medium and 68% for the light watered. This indicates, of course, that in the long run the dry stock is the best, but this may be so and may not; in other words, one feels like saying as did Pilate "What is Truth?"

(Cheer up, Turner. With the wet cycle swinging back to normal(so is said) you can go back to your 1931 and 1932 figures. - Ed.)

****
* A forester is a man who helps the Creator, the *
* nation and the state; unfortunately, on the side of *
* the last two named agencies, there is no reciproca- *
* tion; and the forester is left to the grace of the *
* Almighty, which isn't so bad after all. *
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FORESTRY IN SWEDEN

C. B. Stott, Assoc. Forest Code Examiner - R. O.

"Forestry in Sweden" consists of a written record of the travels of George Sargent Perry of the Pennsylvania State Forest School in Sweden under the American-Scandinavian Foundation. It is compiled to "start arguments, suggest research, and stimulate activity." Certainly it has done all these things for the Superior National Forest. Perhaps a brief review of the more stimulating portions of the 263 page book would interest and help in other fields and on other forests.

The population of Norway and Sweden is eight million souls; the productive forest soil is sixty million acres, or $7\frac{1}{2}$ acres per capita. Region Nine has a productive forest acreage of $1\frac{1}{2}$ acres per capita.

Sweden has a large area of crown forest which corresponds to our National Forests and which, like our own are being augmented slowly but constantly by purchase, prices running as high as $32.00 per acre.

Silvicultural research is stressed and "try everything" the rule and guide. The experiment station has more than 1,000 permanent sample plots.

Forest codes are old stock in Sweden. Forestry is not practiced only in the crown forests. Private forest timber is marked by crown officials who restrict its removal to the approximate growth. Diameter limit cutting restrictions have long been in effect and, as on the National Forests in America, with only limited success. In 1923 the general forest protection law of the country was strengthened to require private timber land owners to reforest after natural calamities and the destruction of plantations by grazing, and to adequately protect all cut-over areas.

In addition to crown and private forests there are church, communal and county forests, all practicing a brand of forestry only the American idealistic forester thought about in the days B.C. (before code). "A good government example, coupled with research and then a club held over the heads of big landowners accounts for the best private forest management in Sweden."

The good forestry practiced by mostcorporations has become a matter of course, so that they now lead the way in practical forestry in both Sweden and Norway. With passage of time and a little legal compulsion in America, woodlands held by similar industrial concerns, may become models of productivity instead of presenting such disgraceful waste as in the past. As was the case in Sweden for two or three decades, the land owners who went into forestry under compulsion would be deeply grateful to society for the kick that sent them in.

What One Typical State Forest in Sweden has Done

Bjurfors, 16,000 acre Crown Forest in Central Sweden was acquired as a "school forest" in 1894 for $6.80 per acre. Fifteen hundred acres are cleared and rented on five year leases. Rentals are low and each leaseholder agrees to work in the forest part of each year at a specified wage. When purchased, the forest was badly overcut and few stands were over 30 years old. The market was 100 miles distant.

During the first ten years 2,000 cords of thinnings were cut annually. The yield is still mainly thinnings, but during 1920 to 1924 the average annual yield was 5,000 cords.

In 1897, the forest property gave a net return of $2400.00, in 1907 $5,000.00 and in 1924 $20,000.00.

The cutting method is resulting in a rapid approach to normal stocking and distribution of age classes. Practically none of the timber is sold as stumpage, but is disposed of in the forest product form. One man per 400 acres is employed. This is practically the

equivalent of the number of men employed annually on the Superior National Forest, but the latter has not yet reached the point where immediate net money returns are made.

"This example of history and statistics of a Swedish forest gives a concrete idea of what forestry can do from a business standpoint. Forestry is big business, and requires organization and enterprise, two things for which America is famous. We can and will succeed in this field beyond the best examples to be cited in the old world."

Reforestation is not neglected in Sweden. Their experience provides us with some interesting tidbits.

The popular and cheap bar method of planting is considered a delusion and a snare. Up to about 15 years of age, the bar planted trees with more or less deformed root systems led their normal associates in diameter and height increment. Then the roots began to starve, due to monopolization of the food materials elaborated by the excessive foliage. The poor form of certain old plantings in Sweden is thought to be the result of root crowding in bar plantings of days long ago.

In Sweden direct seeding has met with the greatest success in reforestation. The planting done is frequently with balled stock, and the costs in late years under extreme care in stock handling run as high as 10 to 17 dollars per acre.

Thinnings account for a large part of the volume removed in timber cuttings in Sweden. Light thinnings are considered an abomination; heavy thinnings are popular. Examples of results of thinnings clearly demonstrate the folly of touching lightly.

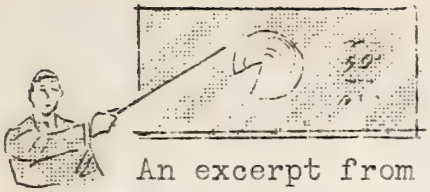
A 70 year old stand of 308 trees per acre grew at the rate of 28 cubic feet per acre per year. Fourteen years after a heavy thinning, leaving 189 trees per acre, it was making a current annual increment of 82 cubic feet.

Another pine stand with 1003 trees per acre thinned at 56 years showed an increase in nine years to 134 cubic feet per acre per year, after removing all but 360 trees per acre.

Most of the thinning is done from above, but even light low thinning on plots has increased the absolute volume growth from 4% to 15%. Heavy low thinning in the same plot series caused an increase of 29 to 37%.

"The most extensive application of heavy thinning is that of the Kramfore sawmill and Pulp Company in North Sweden. This company thins annually 5,000 acres. No immediate returns are secured in the first cut on these young stands, but the returns are reaped 20 years later."

In the face of such examples, can there be any Region Nine disciples of light thinning?



C. C. C. Education

An excerpt from "Something About CCC Education" by John D. Guthrie in the Service Bulletin dated January 21, 1935, states the following:

"I have heard of camps giving courses in conservation, and yet these are conservationist camps and it is the Civilian Conservation Corps. I wonder how many of the 500,000 to 600,000 boys who have passed through these camps would know the meaning of the word conservation if they were asked?

"If these boys do not learn something of the conservation of natural resources while they are in the CCC, it will be the fault of the Civilian agencies who are directing the work; neither the Camp Advisors nor the Army Officers can be expected to know much about it. Here's the biggest chance Foresters (Federal and State) ever had to educate 800,000 boys from every State in the Union in the rudiments of conservation. Will we seize this chance, or will we be too busy building material things?"

Offhand, reports emanating from many of the camps indicate that Mr. Guthrie is not fully acquainted with the educational program in Region 9. Reports from the camps in this region indicate that dendrology, general forestry, fish and game management, forest surveying and many other forestry subjects are being taught. Classes on these subjects meet two or three times weekly. Field classes on week-ends have emphasized various points under discussion. Even more important than these indoor classes are the explanations and answers given by the foremen in their camps to questions put by the CCC's during work operations. Operations involving nursery practice, planting, timber stand improvement, hazard reduction, fire fighting, recreation, fish and game management, etc. etc., have been the scene of innumerable two and three minute discussions of the problems encountered. There is no better way to instill the fundamental principles of forestry (as opposed to conservation, forestry builds and conserves whereas the former implies "conserve") in the CCC men than this. Nevertheless, Mr. Guthrie's statement does bring home the fact that we have a wonderful opportunity for dissemination and education of the laymen public. Let us make the most of it. And to make the most of it, we must be sincere, tolerant, and willing to help these future foresters of the country.

You Educational Advisors and foresters of the field, let us have a short sentence or two on the character of your forestry courses. Let us have a report from each forest area in the Region.

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The March cover picture is an old one taken in Montana and a part of the permanent photograph collection in Washington. With an objective of less than ONE TENTH OF ONE PER CENT burned-over area a year on the National Forests, this photo as far as Region 9 is concerned can be looked at as a relic of the days before enlightenment - and the CCC program arrived.

WAR ON THE CULTURAL CREW

R. D. Sleeman, C.C.C. - Upper Michigan, F-46

The cultural crews have started something. Not only that, but they have quite a few others mixed up in the fracas. At almost any hour between the time the crews quit work until "lights out" groups in the barracks can be seen in heated debate. It all goes back to an argument by two members of the company as to the identification of a tree.

Trees - what species are they? Trees - the woods are full of them and they are all subject to debate while the crews are at work. Bits of bark, twigs and pieces of branches cut from trees are brought to camp in order that the controversy may be continued or that some accepted authority, usually one of the foremen, may decide the final issue.

This spontaneously originated contest has a value far beyond estimation in the teaching of tree identification and tree culture. It has come to involve those who otherwise would never have much interest in the subject and has broadened the knowledge and interest of everyone concerned.

Trees of all varieties afford subjects, especially if they vary in any characteristic from their species. Ruses and tricks of all descriptions are devised to catch an opponent off his guard and many of them are successful unless the person challenged has a good knowledge of trees.

It has the camp more stirred up than it has been since Christmas vacation.

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* Woodn't Say: We don't know the answer to this one. A* permittee recently inquired at the Forest Office as to * who had the right to the wood he had recently gathered * he or his wife who was suing him for divorce. Perhaps * after issuing a few thousand more free-use wood permits* we will know all the answers. As it is, we're all mak-* ing rapid strides towards becoming lawyers, mind readers financial advisors, or what have you.(Black Hills Forest R-2.) *

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* Skipper says that he doesn't mind having a freshman * define a log scale as an insect or forest litter as * young trees, but when it comes to calling a logarithm * a song of the lumbermen it is going too far. *

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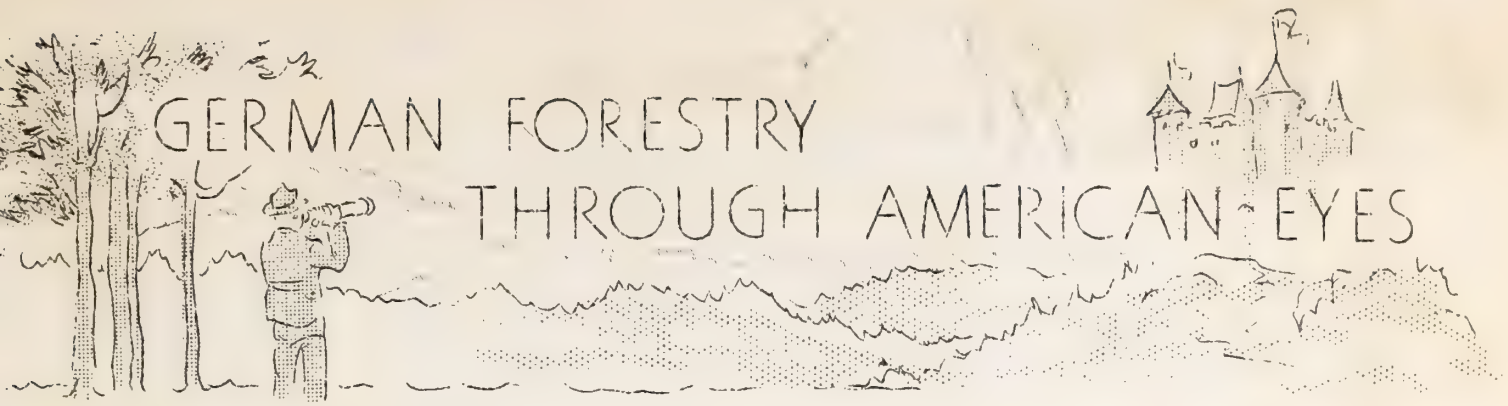

H. Basil Wales continues his interesting extracts from Mr. George F. Cornwall's articles. Comments on these articles drawing possible parallels to local conditions are welcome.

"At a picnic luncheon served in a beautiful grove of beech trees, Count Czernin explained the attachment which every large land owner of Central Europe feels for his forests. Like the rest, he does not regard the property as his own, but merely a temporary trust, which must be preserved intact and handed down to the successor, in as good or better condition than he received it. 'My very life roots are in the soil of this region,' he told us. 'I would not leave it for any other mode of living, even if I could. My people are all around me and I have definite responsibilities to them.'"

(Note: Although a private estate, full recognition is given to the part which the forest must play in the social and economic life of the community. Editor)

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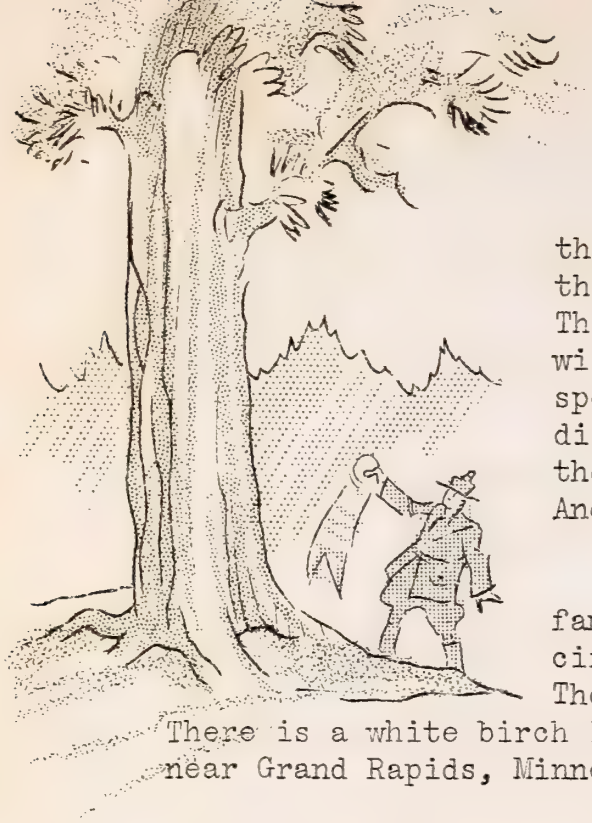
"In 1852 the Schwarzenbergs set up a forest institute at Fraunberg, near Budweis, for the express purpose of developing a working plan for the vast areas in the possession of the family. At the institute, which still serves as the general headquarters of the forest, one may see the original maps of the area, and those made at subsequent ten-year intervals. The plan of sustained yield cutting instituted on the Schwarzenberg estate, antedates the first Austrian forest laws passed in 1856 by at least four years and it is generally agreed that the pattern of these laws came from the work already done by the forest institute at Fraunberg.

"The first working plans, in simpler form however, were placed in effect in 1790 at the time when the Schwarzenberg forests were supplying firewood in huge quantities to cities along the Elbe River and also to Vienna. Records show that the demand from Vienna in the early part of the nineteenth century was so keen that representations were made for larger supplies, but the Schwarzenberg family remained deaf to the plea, supplying only as much wood as the forest seemed capable of producing."

(Note: Our present management plan development must necessarily be very simple, but future revisions based on more accurate data will show vast improvement. Editor.)

(cont in April)



THE BIGGEST TREE!

Having heard numerous arguments about where the biggest tree was located in the north country, the Bulletin herewith stages a Big Tree Contest. The disparity in sizes between the various species will make it necessary to have one prize for each species and a grand prize for the tree greatest in diameter and height. Send in your candidates, their exact location and if possible a photograph. And beware of doubting Thomas.

As a starter, the Chippewa sends in its famed white pine - 125 feet high and 14 feet in circumference just off the Pike Bay Loop Road. There are bigger white pine, but where are they? There is a white birch 14 feet and 10 inches in circumference (D.B.H.) near Grand Rapids, Minnesota, height unknown.

Nominations will continue as long as a bigger tree exists.

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LET'S CARRY ON

Don Campbell, E.C.W. Insp. - Chippewa

"Special Agent Bruce of the Bureau of Forestry will arrive in Duluth from Washington Saturday to resume work in making selections for the big federal forest reserve on the Chippewa reservation."

This little news item, dated July 28, 1903, was clipped from the Thirty Year News Column of the July 28, 1934, edition of the Duluth News Tribune.

Just imagine the satisfaction Gene Bruce would enjoy could he drop off the train at Cass Lake and be taken for a spin over the area where he once directed cutting and slash disposal. The thrifty young stands that now cover the area are a tribute to the man who represented the Forest Service in instituting slash disposal and the leaving of seed trees on the Chippewa. May the results of this efficient and ardent forester inspire the present personnel to continue with equal efficiency in the cultural treatment and protection of these stands.

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THE WEST COAST ANSWERS
By A. T. Shands, T. F. - F-42

Seldom does a day pass that the new West Coast individual is not asked the questions: "Are the trees there as big as they say?" and, "Is the Northwest better from the standpoint of Forestry than this Region?" A single answer is given for both questions, namely, a qualified No.

Most of the pictures shown to the laymen are pictures of the exceptional, and it must be remembered that most of them are touched up -- not to mention the fact that that very tree may now be cut down.

Then comes the question of likes and dislikes. Most of the new men, from the coast, are not at all disappointed. As a matter of fact, here is where they find that they are privileged to practice Forestry. In the old and established forest created by Dame Nature and not exploited by man, a Forester is not as essential as a fire-eater and a trailbuilder. A youngster that comes to this Region finds himself in an atmosphere of forestry principled men and finds himself taxed along his most cherished lines. He finds that his ideas will fit into the scheme by reason of their newness. To be more exact, he finds that after a careful study of a particular problem, he is part of the scheme. The new man is given a sense of importance and made to feel that his particular problem is one of the most important functions in the growth of this embryonic Forest.

On an old established forest a youngster that has an idea finds himself not only at a loss to explain himself, but finds himself without an audience. With the work routined to the point of dullness and individualism at its lowest point, the youngster is not noticed and becomes non-flexible. In contrast, in this new area, the youngster finds himself called upon to answer problems that confront him. With this in mind, the new man that comes from the West has not time to be disappointed; but instead is waking to the fact that he is satisfied beyond his own expectations.

* * * * * * *

R-9 Bulletin Fodder

There is still the necessity of repeating "do's" and"don'ts" in submitting articles for the R-9 Bulletin. Some items are listed to refresh your memory. Please note that these points are stressed to make the Bulletin more readable and also to make it easier for all concerned.

1. Articles must be kept to a page, page and a half. Longer articles will be returned and will not go into the Bulletin. The only exception is where some technical or other worthy article warrants publishing it in two parts.

2. Instructions are standard for the Region. Don't repeat them otherwise, they will either be deleted or the whole article will be thrown out.

3. Don't rehash material which has already been published. Pro and con comments on published articles are always acceptable.

4. Please remember in discussing problems that the wider the application the more interesting to your readers. Problems with local application, unless unusual are of little interest to the rest of the region.

5. In submitting articles use the following heading:

PR Date
Service News
R-9 Bulletin

Title
John Doe - Tech. Foreman F-15
Manistee

6. The success of the bulletin to the organization is entirely dependent on the type of material received. Please control your enthusiasm on your facetious articles to less than half page. Submit:- technical articles in fire protection, logging, planting, forest management, recreation, policy, fish and game, pathology and entomology, construction, etc., are wanted. There is no limit. Make them interesting and worthwhile and the Bulletin will be glad to have them. Only send them in, and don't forget the sketches, news items, poems, etc., and double-space your articles.

7. Remember, contributions are acceptable from ALL FORESTS. Review of recent issues indicates that only a few forests are contributing. Shame! Shame!

8. Our motto: Quality not quantity!

Cupid at Work Again

Spring has come early in southwest Missouri. Anyway Dan Cupid came out ahead of Mr. Ground Hog and shot his fatal arrow. Mr. Fobes, Superintendent of Camp F-3 was married on January 5th to Miss Virgie Huffmann of Rolla. All of the original gang who came to Missouri will remember the pleasant smile and the mischievious nature of the dark haired, brown eyed girl at the Colonial Hotel. As one of the boys has said, "She has made many a meal pleasant for me."

Forest Service knows that burning does not aid the growth of grass, but the people do not know it. It will take years of slow and tedious education before they will see the light. The continuous efforts of the fire crews who patrol these fires should in time break down the walls of custom and bring about greater cooperation from the people.

Timber Trespass Accomplishments - Camp F-3, Gasconade Purchase Unit, Palace, Missouri, is rather proud of its work to date. Thirteen trespass cases involving ties, logs, Christmas trees, stave bolts and header bolts having a sales price of $213.35 were settled as a result of the activities of this camp.

Game News - The turkeys have been taken to the Game Refuge for new range. An ideal nesting area has been selected and fences installed by Mr. Ward, Local Woodsman. Men have been stationed in this area for the purpose of protection. People in the neighboring communities are watching the project with much interest. Many of these people are pleased at the prospect of the repopulation of wild game in this unsurpassed national game area. They are willing to aid in such worthwhile efforts.

John J. Meredith has been transferred to Ironwood, Michigan, and will be with our former Supervisor, Leslie S. Bean, who has been transferred to Michigan. Mr. Meredith was with us as Technical Foreman. He was especially apt in the work on timber trespass and made quite a name for himself in that work. Jack, as he was known here, made many friends here who wish him success at his new location.

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* Paper underwear which may be discarded after *
* being worn is now being offered by several manu- *
* facturers. *
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QUARANTINED

By H. T. Callinan, Tech. Foreman - Superior F-5

Plenty of time is afforded the personnel of Gunflint camp to keep their griping edges pretty well honed. A quarantine going into its fourth week, and with slight hope of its discontinuance before Spring breakup, is effecting a noticeable change towards chronic stages of "Dementia barracksia". Especially to the camp overhead's newly-weds - numbering four. Sagey advice from the old weds sums up the whole thing as quite laughable, but then, youth is so rebellent it's hard to see any saginess in opinions like that. The colony of newly-wedded overhead at Poplar Lake, ten miles north of camp, is deserted, and the small summer resort that was expected to be populated and established as a full-fledged village of "Forestersville" is again back to its original standing as a quiet resort attended only by the owner. Carrying out

the final stroke in this forestry profession of establishing small communities within the forests, is now thwarted by the dreaded "Streptococcus", known to us commoners as Scarlet Fever.

Aside from being quarantined, the camp is in good shape. The weather is turning to the milder, and work on liberation is progressing at an average of eight man-days per acre, which is good considering the 33" of snow, and the heavy cultural change we are working.

Slash removed from the summer home sites on beautiful Hungry Jack lake last summer is being burned on the ice. Because of heavy snows on the lakes before they were properly frozen the ice is found in two layers, with 6-10 inches of water between. Snowshoeing over the lakes means many steps will sink through this snow, ice, and water down to the bottom layer. It is well over any shinns, but a shipolks' and T. F. Krefting's, our fish and game specialist. Lucky, too, for him, cause lake traveling is a daily job with him.

As a bit of parting advice, your correspondent (who knows only too well) says let none of you foremen ever entertain the idea for one brief second of slipping a quarantine. The results are disastrous and you will be a guilty or heartbroken individual.

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Passing across our desk comes the following excerpt on Minnesota Legislation in the making:

"A copy of the proposed bill to Congress entitled, 'A Bill to authorize cooperation with the several States for the purpose of stimulating the acquisition development and proper administration and management of state forests and coordinating Federal and State activities in carrying out a national program of forest land management, and for other purposes ', has been presented to the Conservation Commission for formal action."

Cooperation between State & Federal agencies is the key behind the movement involving the management of 83,882,000 acres of forest land in Region 9 - 30,000,000 idle or low productive acres emphasizes the need for immediate, consolidated action to prevent further timber depletion and soil erosion.

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Northern Light Camp F-6 - Superior

The forestry office is taking on a very much improved appearance in the remodeling which is being done at the present time. The interior is being lined with paneling, more windows added, and the superintendent now has his private office separate from the larger office room. The fixtures, including the desks, drawing table, and benches, are all being remodeled and improved for more efficiency. A very handy map rack has been made, and inclosed, so the maps will be available at all times, and yet kept clean. All of this work will bring this building up to a standard comparable to the other buildings in the camp.

ECW Inspector A. E. Schneider visited this camp recently and inspected the cultural operations now being done. He commented upon the improved quality of work being done, which can be attributed to close supervision by the overhead and increased understanding of the job to be done by the men in the field.

Construction Foreman R. L. McCormick is at Northern Light Camp doing the carpenter work on the forestry building and Construction Foreman Frank M. Anderson is taking his place at Poplar Lake, F-41.

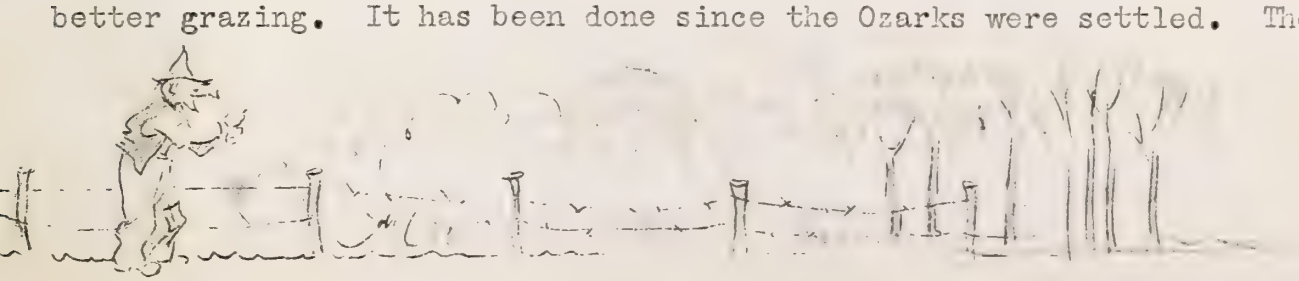
Any comments from this camp upon the going of Ranger Legat to his new position in Michigan would be inadequate, because all of the forestry overhead have learned to really like and respect Ranger Legat. His forceful personality and fairness will be long remembered, and we can only state that we certainly hate to see him leave the North Shore. However, in all fairness to him, we hope that he likes his new work, and wish him continued success in his chosen field which he has done so faithfully through the years.

Mr. W. J. Brown will take over the duties of the Gunflint Ranger District, and we wish to take this means to welcome Mr. Brown to his new position.

A good way to relieve the monotony of your job is to think up ways of improving it.

News from Camp F-3 - Michigan
By H. K. Robins, Foreman.

Fire Control - First signs of spring are in the Ozarks. Closely following comes the customary burning of brush and forest fires. Custom is a very difficult barrier to break in the course of progress. The local people have burned the woods for years in order to furnish better grazing. It has been done since the Ozarks were settled. The



CONNECTING INSTRUCTION WITH THE WORK

By John B. Kuehn, Camp Educ. Advisor, CCC Co. 737

For many years past, depending on the labor supply, supervisors have handled men with varying degrees of consideration and, therefore, with varied degrees of success.

Organizations which have an investment of supervisory time, some training and wasteful production in an employee endeavor to change the man to a new job within the organization to protect their investments, give the man a chance for adjustment, be humane, avoid undesirable advertising and avoid the expense of breaking in new men by the trial and error method.

Human beings being what they are possess varying degrees of mental and physical ability. In an organization such as the CCC, this too applies.

Instruction in the CCC must be given to any new workman on the job -- little by little, no more than he can absorb at one time. Too much instruction at one time may lead to confusion for one. The more instruction given over a period of time, probably the better. To preserve a workman's individuality, he must be permitted self-expression in his work. A minimum of instruction might be directing the chopping of a tree, the digging of a ditch or moving a stone. The highest type of instruction would be to explain why that tree was cut, its utility or undesirability, the reason for digging a ditch at a certain point, the character of the soil, the ability of the soil to withstand the elements, the reason for moving a stone and a classification of that stone--these take away the monotony of the work and give the workman a personal interest in what he is doing and make him feel he is a part of any project. This makes for a more contented workman, adds to their training in efficiency, and gives them something to carry over into other work situations.

An ideal school of instruction for foremen and workmen is one in evidence on the various projects eminating from this CCC camp. The foremen have something of interest to communicate to their charges over and above the minimum necessary to carry on the work. This gives the foremen an increased knowledge and interest, brings about a bond of understanding with their men and takes away the monotony of the work. This is done without interruption to the work and improves the work. The idea is not one of exploitation.

Leadership must come through a sympathetic understanding of each others problems and be devoid of silly sentiment, with a hope of immediate and lasting reward. Instruction on the job is concrete.

A relationship between foremen and workmen will be established only when foremen become teachers with something of value to communicate to the men in their charge. This we feel is being done in this camp.

FORESTERS' ATTENTION

The Junior Forester's examination for April has been announced. Application must be on file with the United States Civil Service Commission in Washington, D. C., not later than April 15, 1935. Get your application blank in early. These can be obtained from the Forest Supervisor or Ranger. Note that two and three years of college work in forestry or science makes a man eligible for the examination if he has had 2 years of field work in technical forestry. Additional details on this examination may be obtained from circular letter O-53 of March 21.

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The April issue of the Bulletin is to be given over to the Forest Management specialists. With a winter's cultural operations gone by, even the newer men must have some contribution towards the April issue. There is a wide field of topics to choose from. Nursery, planting, timber stand improvement, forest inventory, timber sales, etc. Let the rest of the Region hear your problems and how you solved them.

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Region 9 Broadcasts!

The start of a series of radio talks by Scott Leavitt, Senior Administrative Officer in Charge of Public Relations, took place March 26 at 6 p. m. over WISN, Wisconsin News station. Then talks will be broadcast every two weeks at this hour on subjects of interest to foresters and laymen alike.

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Through the R-9 Knothole

1. Branch Chiefs are making so many trips it is impossible to keep up with them.

2. Our Chief, Mr. E. W. Tinker, has made the rounds from Chicago, to the Manistee, to the Indiana and back to Milwaukee during March.

3. E. S. Peirce, Chief of Lands, is even now at Fargo with Arlie Toole, newly appointed Forest Supervisor for North Dakota.

4. Offices of the various branches were shifted about on April 2. The Regional staff employs over 200 persons at present and the offices are grouped in four buildings. New additions in personnel include:

5. Earl C. Sanford from Ogden, Utah office of Region 4, now Inspector for Forest Management.

6. Joseph A. Donery, Logging Engineer, transferred from Denver to Milwaukee. Donery is an ex-Cass Laker and therefore not new in the Region.

7. Axel H. Lindh called in from the Missouri and assigned to the Branch of Lands.

8. S. E. Schoonover, Chief of Fiscal Control, in Washington evidently trying and no doubt succeeding in seeing that our April checks are honored.

9. S. D. Anderson of Lands is up on the Ottawa.

10. C.L.VanGiesen, new Forest Supervisor on Chequamegon Forest.

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